E-Mail: Zsupport@betsol.com
Phone: 888-496-2632
408-732-3208

Compatibility of ZMC with AWS Storage Gateway

Why AWS with Zmanda 3.6?

Tapes are found to be one of the most reliable backup and disaster recovery solutions. Tapes are one of the most durable solutions for this problem. It is not very often that a disaster occurs in an enterprise and it is highly imperative that backup storage devices have a long lifespan and tapes are claimed to have a lifespan of around 30 years. Tapes are also found to be secure, cost effective and portable compared to other backup solutions like cloud services and disks.

However, physical tapes are very old, and they can be a hindrance in terms of wasting valuable operational time, capital, and flexibility. It is due to these reasons that AWS Storage Gateway is being offered as an effective solution and Zmanda 3.6 is found to be compatible with this latest technology.

How To Configure AWS Storage Gateway with ZMC

To know how to install ZMC, follow this article. Just follow these simple steps on the server where ZMC is installed to configure AWS Storage Gateway with ZMC.

1. Install iSCSI-initiators-utils
yum install iscsi-initiator-utils

2. Make sure that the iSCSI daemon is running
sudo /etc/init.d/iscsi status (Rhel/Centos 5/6)
sudo service iscsid status(Rhel/Centos 7)

3. If the iSCSI daemon is inactive, it needs to be started
sudo /etc/init.d/iscsi start (Rhel/Centos 5/6)
sudo service iscsid start(Rhel/Centos 7)

```
[root@prashanth_vm /]# sudo service iscsid status
Redirecting to /bin/systemctl status iscsid.service
● iscsid.service - Open-iSCSI
   Loaded: loaded (/usr/lib/systemd/system/iscsid.service; disabled; vendor
et: disabled)
   Active: active (running) since Sat 2019-11-30 14:48:14 MST; 29min ago
     Docs: man:iscsid(8)
           man:iscsiadm(8)
  Process: 10137 ExecStart=/usr/sbin/iscsid (code=exited, status=0/SUCCESS)
 Main PID: 10139 (iscsid)
   CGroup: /system.slice/iscsid.service
           ├─10138 /usr/sbin/iscsid
           └─10139 /usr/sbin/iscsid
```

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4. Discover the volume or VTL device targets defined for a gateway

sudo /sbin/iscsiadm --mode discovery --type sendtargets --portal [GATEWAY_IP]:3260

```
[root@prashanth_vm /]# sudo /sbin/iscsiadm --mode discovery --type sendtargets -
-portal 192.168.53.47:3260
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-10
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-01
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-02
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-03
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-mediachanger
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-04
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-05
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-06
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-07
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-08
192.168.53.47:3260,1 iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-09
```

5. Connect to a target

sudo /sbin/iscsiadm --mode node --targetname iqn.1997- 05.com.amazon:[ISCSI_TARGET_NAME] --portal [GATEWAY_IP]:3260,1 –login

```
[root@prashanth_vm ~]# sudo /sbin/iscsiadm --mode node --targetname iqn.1997-05.
com.amazon:sgw-1e5cb077-tapedrive-10 --portal 192.168.53.47:3260,1 --login
Logging in to [iface: default, target: iqn.1997-05.com.amazon:sgw-1e5cb077-taped
rive-10, portal: 192.168.53.47,3260] (multiple)
Login to [iface: default, target: iqn.1997-05.com.amazon:sgw-1e5cb077-tapedrive-
10, portal: 192.168.53.47,3260] successful.
```

6. There are two things to keep in mind during configuration.

a. Media changer and tape drives need to be connected to using the previous command before being able to use them.

b. The default block size of data sent for backup is set to 32kB but must be changed to 65kB in the amanda.conf file. The following line must be appended in the amanda.conf file.

```
device-property "BLOCK_SIZE" "65k"
```

7. Use the lsscsi –g command, this command gives the user a list of scsi devices connected to the system. The first entry on each line is the scsi_host, channel, target_number, and LUN tuple. These entries are placed in brackets and each element is colon separated. During configuration, the medium changer must have the least number of all.

```
[qauser@ZMUSLABL-Q640 ~]$ lsscsi -g
[0:0:0:0]    disk    VMware   Virtual disk     1.0   /dev/sda   /dev/sg0
[1:0:0:0]    cd/dvd  NECVMWar VMware IDE CDR00 1.00  /dev/sr0   /dev/sg1
[8:0:0:0]    mediumx AWS      Gateway-VTL      0100  /dev/sch0  /dev/sg4
[9:0:0:0]    tape    IBM      ULT3580-TD5      0103  /dev/st0   /dev/sg2
[10:0:0:0]   tape    IBM      ULT3580-TD5      0103  /dev/st1   /dev/sg3
[qauser@ZMUSLABL-Q640 ~]$
[qauser@ZMUSLABL-Q640 ~]$
```

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8. Once the above steps are followed, refer to this documentation to proceed with labelling of tapes. Once labelling is successful, a given DLE can be bound to tapes on AWS, to be the end storage device.